PROGRESS REPORT OF WOLF POPULATION MONITORING IN WISCONSIN FOR THE PERIOD OCTOBER - DECEMBER 2000

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The enclosed report provides a short summary of wolf monitoring activity in Wisconsin for the period of October through December 2000, and some summaries for the year 2000. A more thorough report of fall/winter survey work will be completed in spring 2001. Gray wolves have been listed as a state threatened species since October 1, 1999, and a new management plan was approved on October 27, 1999. Thirty-eight radio collared wolves were monitored in at least 29 different packs during the quarter, but as many as 6 or 7 may have been loners. Five collared wolves died and 1 lost its collar during the period. Wolf observations were reported for 23 Wisconsin counties. Thirteen cases of wolf depredation on pets or livestock were reported for 2000.

Many people assisted on wolf surveys in Wisconsin. A more complete list will occur in the spring survey report. Aerial monitoring of collared wolves was done by DNR pilots Phil Miller, Joe Sprenger, John Bronson, Paul Anderson, John Jorgenson, and Mike Weinfurter. Trapping and/or howl surveys were conducted by Ron Schultz, Bruce Kohn, Dick Thiel, Wayne Hall, Paul Keenlance and Sarah Boles. Kerry Beheler coordinated wolf health monitoring, Dr. Kim Miller coordinated necropsies, and Dr. Nancy Thomas conducted necropsies at the National Wildlife Health Center in Madison. Local biologists and US Forest Service biologists assisted with surveys. Randy Jurewicz coordinated wolf depredation control programs, and Bob Willging supervised USDA-Wildlife Services personnel in investigating and live-trapping of problem wolves.

Funding for wolf monitoring was from U.S. Fish and Wildlife Service endangered species grants, Federal Aid in Wildlife Restoration (Project W-154R, PR Funds), Chequamegon-Nicolet National Forests, Wisconsin Endangered Resources Fund, Timber Wolf Alliance Adopt-A-Wolf Pack, Timber Wolf Information Network, Zoopride (Milwaukee Zoo), Defenders of Wildlife, and contributions from the general public.

Collared wolves were monitored in 29 packs, including 2 packs in Minnesota (Table 1). The 27 packs in Wisconsin with collared wolves represents 41% of the 66 packs in the state. Peak number of wolves on the air during the quarter was 38, and 32 remained at the end of the quarter. Losses during the quarter included death due to mange to 3 wolves (002F, 280M, 334M), death by unknown disease or infection to 1 wolf (247F), death by other wolves for 1 wolf (266F), and collar loss on 1 animal (310F). Six wolves appeared to be loners at the beginning of the period and 7 appeared to be alone at the end; 3 of these wolves may have joined other wolves part of the time (002F, 229F, 309F). Total wolves monitored included 15 adult males, 15 adult females, 1 yearling male, 3 yearling females, 2 pup males, and 2 pup females.

Thirteen of fifteen live-captured wolves in 2000 were fitted with radio collars (Table 2). Two wolves were live captured by USDA-Wildlife Services at a deer farm in western Oneida County, and were released in

western Florence County. Two collared wolves died the first year of their capture including 247F (infection or disease?) and 334M (mange). Wolf 334M was the largest wolf caught in the monitoring program at 108 pounds, but died at 95 pounds in December. Normal trapping for wolf monitoring is usually done from early May to mid September, but occasionally some wolves are caught by coyote trappers in the fall, and depredation control trapping is done whenever depredations occur. All wolves live-trapped in 2000 were captured during the normal monitoring period.

Fifty-three reports of wolf observations by agency personnel or the general public were received during the quarter (Table 3). Generally wolf observation rates are highest during the fall hunting seasons. Observation rates for the last quarter of 2000 were slightly less than observations in the same quarter in 1999 (62), but more than the previous quarter in 2000 (37). These reports of "probable" or "possible" wolf observations were received from 23 counties, with the highest rate from Bayfield County.

Thirteen cases of wolf depredation were reported for 2000 (Table 4), compared to 9 cases in 1999, and 24 cases in 1998. Reimbursement payments of \$18,000 were likely to rise because several payments were still pending, but not likely to compare to the payments of \$54,374 in 1999.

Total livestock/poultry depredations occurred on 8 different farms in Burnett, Sawyer, Iron, Douglas (2), Washburn, Marathon and Bayfield Counties. Only six cattle (calves) were verified as killed and 1 calf was injured, but 32 calves were reported missing (30 on 1 farm). Six packs were apparently involved in livestock/poultry depredation, and 2 livestock depredations were by loners or wolf-dog hybrids.

Wolf depredation caused the death of 5 dogs in 4 different cases. Three dogs were killed in hunting situations, and 2 were killed near human dwellings. The 3 packs involved in killing dogs had been responsible for dog depredation in previous years.

A total of 25 dead wolves were recovered in 2000, including 12 with radio collars (Table 5). Causes of death included 10 vehicle collisions, 2 shootings, 1 natural accident, 1 unknown disease or infection, and 2 unknown. Mortality among collared wolves was 4 mange, 3 other wolves, 1 disease or infection, 1 vehicle collision, 2 shootings, and 1 unknown. Among all mortalities, 12 (48%) were human-caused, and among collared wolves, 3 (25%) were human-caused. Collared animals provide better indications of overall rates of mortality. Few wolves suffering from mange or killed by other wolves would be found if not for radio collars. Most wolves killed by vehicles are probably recovered because only 1 in 10 had a radio collar, which is the approximate rate of collared wolves in the population.

Plans for Next Quarter

Aerial monitoring will continue, with attempts to obtain several complete counts of packs with radio collared wolves. Aerial telemetry will also be used to determine the extent of areas roamed by collared packs. Snow tracking will be done by DNR trackers on all non-collared packs, and will be used to attempt to locate any lone wolves. Volunteer carnivore trackers will also be used to survey extensive areas of northern and central Wisconsin. The winter wolf population will be determined in early April after winter surveys are completed.

Table 1. Radio-collared wolves monitored in northern and central Wisconsin October - December, 2000.

Wolf Number	Age ^a	Pack/Area	Counties	Date Captured	Last Date	Locations ^b
002F	Y	Disperser	Clark/Jackson	10 May 98	22 Nov 00 ^c	139
155M	A	Moose Road	Douglas/Pine	6 May 97	Ongoing	291
229F	A	Penokee Ridge/Loner?	Ashland	17 Jul 98 ^d	Ongoing	373
241F	P	Ghost Lake	Bayfield/Sawyer	20 Nov 97 ^e	Ongoing	152
244F	A	North Willow	Oneida	23 Jul 97	Ongoing	166
245F	P	Hoffman Lake	Iron/Ashland/Price	30 Jul 97	Ongoing	179
247F	P	Black Lake	Ashland/Sawyer	4 Sep 00	10 Oct 00 ^c	8
248M	A	Torch River	Ashland	28 Jun 00	Ongoing	27
250M	P	Black Lake	Sawyer/Ashland	9 Sep 00	Ongoing	18
266F	Y	Bird Sanctuary	Douglas	7 Aug 96	30 Oct 00 ^c	351
267M	A	North Empire	Douglas	28 Aug 96	Ongoing	349
268M	Y	Truck Trail	Douglas/Pine	11 Jun 97 ^f	Ongoing	279
269M	P	Dead Creek/Disperser	Jack./Monr./Jun./Wood	17 Sep 99	Ongoing	71
280M	Y	MN pack	Pine	13 May 98	26 Dec 00 ^c	165
282F	Y	Little Rice River	Oneida	10 May 98	Ongoing	142
285F	A	Ranger Island	Lincoln	24 Aug 98	Ongoing	119
286F	Y	Brunet River/Log Creek?	Sawyer	5 Sep 98	Ongoing	117
289F	A	Pioneer Creek/Loner?	Vilas/Gogebic	26 Apr 00 ^g	Ongoing	134
291M	A	Chain Lakes	Douglas/Washburn	27 Jun 99	Ongoing	86
292M	Y	Tranus Lake	Washburn	21 May 99	Ongoing	96
293F	A	Frog Creek	Washburn/Sawyer	23 May 99	Ongoing	94
294M	A	Totagatic River	Douglas/Burnett	23 May 99	Ongoing	94
295F	Y	Totagatic River	Douglas /Burnett	25 May 99	Ongoing	95
296M	Y	Crotte Creek	Douglas	28 May 99	Ongoing	94
297M	A	South Empire	Douglas	2 Jun 99	Ongoing	94
298M	Y	North Empire/Tamarack	Douglas/Pine	8 Jun 99	Ongoing	88
309F	P	Tioga/Loner?	Clark	15 Nov 99	Ongoing	74
310F	P	Dead Creek	Jackson/Monroe/Jun.	15 Sep 00	14 Nov 00 ^h	10
M310M	P	Brush Creek	Ashland	2 Nov 97 ⁱ	Ongoing	95
311F	Y	Bear Bluff	Jackson/Wood	24 Sep 00	Ongoing	64
316F	A	Wintergreen	Price	20 Oct 99	Ongoing	69
318F	Y	Disperser	Vilas/Gogebic/Onton.	11 May 00	Ongoing	36
332F	A	Loner?	Oneida/Langlade	10 May 00 ^j	Ongoing	48
334M	A	Wilson Flowage	Price	23 May 00	28 Dec 00 ^c	37

Table 1. cont.

Wolf Number	Age ^a	Pack/Area	Counties	Date Captured	Last Date	Locations ^b
337M	A	Wildcat Mound/Disperser	Jackson/Adams/Colum.	17 Jul 00	Ongoing	26
351M	A	Chippewa River	Ashland/Iron	17 Jun 00	Ongoing	31
353M	P	Bootjack Lake	Oneida/Price	12 Sep 00	Ongoing	16
724F	A	Chase Brook	Burnett/Pine	26 Apr 99 ^k	Ongoing	287

^a Age at time of capture (P = Pup, Y = Yearling, A = Adult)
^b Total locations from the time of capture

^c Mortality

d Recaptured wolf; first captured as a yearling in Sawyer County on 9 Jul 1993

^e Recaptured wolf, first captured in Ashland County on 23 Jun 1997, 19 lb. pup too small to collar

f Recaptured wolf; first captured as a pup in Douglas County on 28 Aug 1996

g Recaptured wolf, first captured in Douglas County on 5 Jun 1998, captured in deer farm in Oneida County, relocated to Florence C ^hSlipped collar

ⁱCaptured in Houghton County, Michigan

i Captured in deer farm in Oneida County, relocated to Forest County

^k Recaptured wolf; first captured in Douglas County 28 May 1997

Table 2. Wolves captured and radio-collared in Wisconsin in 2000.

Wolf Number	Sex/Age ^a	Weight (lbs)	Pack/Area	County	Date Captured
247	F/P	31	Black Lake	Sawyer	04 Sep 00
248	M/A	78	Torch River	Ashland	28 Jun 00
250	M/P	30	Black Lake	Sawyer	09 Sep 00
289 ^b	F/A	80	Relocated	Oneida	26 Apr 00
310	F/P	42	Dead Creek	Jackson	15 Sep 00
311	F/Y	76	Bear Bluff	Jackson	24 Sep 00
318	F/Y	~60	Nineweb Lake	Vilas	11 May 00
332 ^c	F/A	69	Relocated	Oneida	10 May 00
333	F/Y	59	Wilson Flowage	Price	23 May 00
334	M/A	108	Wilson Flowage	Price	23 May 00
335^{d}	M/P	10	Bootjack Lake	Oneida	30 May 00
336 ^d	M/P	26	Bootjack Lake	Oneida	10 Jul 00
337	M/A	80	Wildcat Mound	Jackson	17 Jul 00
351	M/A	86	Chippewa River	Iron	17 Jun 00
353	M/P	41	Bootjack Lake	Oneida	12 Sep 00

^a Age at time of capture assuming birth date 1 April (P = Pup, Y = Yearling, A = Adult) ^b Captured by Wildlife Services on game farm, relocated to Florence County 2 May 00.

^c Captured by Wildlife Services on game farm, relocated to Forest County 29 May 00.

d Not collared, too small.

Table 3. Wolf observations by the general public and resource agency personnel October - December, 2000.

	No. of Sinking		Track or Sign	Total Wolf
County	No. of Sightings	Wolves Seen	Observations	Observations
Ashland*	3	10	1	4
Bayfield*	7	8	1	8
Clark*	2	3	1	3
Columbia	2	2	0	2
Douglas*	1	1	2	3
Eau Claire*	0	0	1	1
Florence	1	1	0	1
Forest*	0	0	2	2
Iron*	1	2	2	3
Juneau*	1	1	0	1
Langlade	1	1	1	2
Lincoln*	1	1	2	3
Marathon	1	1	0	1
Marinette	0	0	1	1
Oconto	1	2	0	1
Oneida*	4	5	1	5
Price*	4	13	0	4
Rusk*	0	0	1	1
Sauk	1	1	0	1
Sawyer*	1	1	0	1
Shawano	1	1	0	1
Trempeleau	1	1	0	1
Vilas*	2	2	1	3
Totals	36	57	17	53

^{*} Counties with known breeding packs. No observations were reported from Burnett, Jackson, Monroe, Taylor, Washburn and Wood Counties where breeding packs are known to exist.

Table 4. Wolf depredation cases on livestock and pets in Wisconsin in 2000.

Date	Animal Lost	Pack Involved	County	Payments	Other Actions
1/17	1 dog	Chase Brook	Burnett	\$500	None
3/15	1 dog (Husky)	Loner?	Price	\$250	None
4/12 & 7/8	2 calves killed 30 calves missing	Chase Brook	Burnett	Pending	None
4/26 & 5/10	3 deer	Little Rice River?	Oneida	\$13,000	2 livetrapped by WS, translocated
5/2	1 calf	Tupper Creek?	Sawyer	\$500	None
5/8	1 calf	Pine Lake	Iron	\$730	None
5/19	1 calf injured 1 calf missing	Loner	Douglas	No claim	None
5/20	1 calf missing	Tranus Lake	Washburn	\$475	None
7/28	1 calf	Hybrid/Loner?	Marathon	Pending	None
8/22	4 chickens killed 3 turkeys missing	North Empire	Douglas	\$25	None
8/25	1 dog (Plott)	Chain Lake	Douglas	\$1350	None
9/16	1 calf	Flag River	Bayfield	\$1200	None
12/4	2 dogs (Black & Tan & Mtn. Cur)	Shoberg Lake	Douglas	Pending	None
13 cases	18 animals killed 1 animal injured 35 missing	9 packs 2+ loners 1 unknown	9 counties 8 farms	\$18,030.00	2 livetrapped 2 translocated
	6 calves killed 1 calf injured 32 calves missing 5 dogs killed 4 chickens killed 3 turkeys missing 3 deer killed				

Table 5. Wolf mortality in Wisconsin in 2000.

Date	Wolf Number	Age/Sex	County	Cause
01/15/00	17(MI)	PF	Marathon	Shooting
01/20/00	199	AM	Washburn	Other wolves
01/21/00	NC	AM	Florence	Mange
01/26/00	NC	PF	Lincoln	Snowmobile collision
01/27/00	Reservation ^a	AF	Ashland	Mange
03/31/00	NC	Y?M	Douglas	Other wolves
04/10/00	NC	? ?	Taylor	Accident/Natural
04/19/00	315	YF	Lincoln	Other wolves/tight collar
05/16/00	NC	A M	Bayfield	Vehicle collision
<6/15/00	NC	? ?	Vilas	Unknown
07/08/00	NC	P ?	Ashland	Vehicle collision
07/31/00	333	YF	Price	Shooting
08/06/00	NC	A?	Juneau	Vehicle collision
08/14/00	NC	P M	Ashland	Vehicle collision
08/24/00	NC	P?M	Douglas	Vehicle collision
08/25/00	238	6YrM	Jackson	Vehicle collision
09/05/00	NC*	P M	Douglas	Vehicle collision
10/10/00	247	PF	Sawyer	Disease or Infection
10/30/00	266	5YrF	Douglas	Other wolves
11/13/00	NC	P M	Jackson	Vehicle collision
Fall?/00	274	A M	Juneau	Unknown
11/22/00	002	3YrF	Clark	Mange
12/17/00	NC	A M	Shawano	Vehicle collision?
12/22/00	290	3YrM	Bayield	Mange/Vehicle collision?
12/28/00	334	A M	Price	Mange?

^{*}Possibly wolf-dog hybrid

aWolf monitored by the Bad River Band of Chippewa

APPENDIX

	APPENDIX Nicknames used for radio-collared wolves					
Wolf No.	Sex	Age ^a		Status Nickname		
002	F	A(3yrs)	Subordinate	Miva		
155	M	A(5yrs)	Subordinate?	Woody		
229	F	A(8yrs)	Subordinate	Shelby		
241	F	A(3yrs)	Subordinate	Marry		
244	F	A(7yrs)	Alpha	Maggie		
245	F	A(3yrs)	Alpha	Jody		
247	F	P(<1yr)	Subordinate	Hattie		
248	M	$A(\ge 2yrs)$	Alpha	Grady		
250	M	P(<1 yr)	Subordinate	Wundo		
266	F	A(5yrs)	Alpha	Luna		
267	M	$A(\geq 6yrs)$	Alpha	De Brock		
268	M	A(4yrs)	Alpha	Barker		
269	M	Y(1yr)	Subordinate	Mike		
280	M	A(3yrs)	Alpha?	Tagg		
282	F	A(3yrs)	Subordinate	Sheri		
285	F	A(≥3yrs)	Subordinate?	Shelli		
286	F	A(3yrs)	Alpha?	Raven		
289	F	A(≥4yrs)	Subordinate	Journey		
291	M	A(≥3yrs)	Alpha?	Sase		
292	M	A(2yrs)	Subordinate	Daniel		
293	F	A(≥3yrs)	Alpha	Terra		
294	M	A(≥3yrs)	Alpha	Joseph		
295	F	A(2yrs)	Alpha	Jesse		
296	M	A(2yrs)	Subordinate	Wag		
297	M	A(≥3yrs)	Alpha?	Albert		
298	M	A(2yrs)	Subordinate	Max		
309	F	Y(1yr)	Subordinate	Ann		
M310	M	A(3yrs)	Alpha?	Cayuga		
310	F	P(<1yr)	Subordinate	Lorrie		
311	F	Y(1yr)	Subordinate	Severina		
316	F	A(≥3yrs)	Alpha	Jane		
318	F	Y(1yr)	Subordinate	Thunderbolt		
332	F	A(≥2yrs)	Subordinate	Pam		
334	M	A(≥2yrs)	Alpha	Marshall		
337	M	A(≥2yrs)	Alpha?	Jack		
351	M	A(≥2yrs)	Alpha?	Jay		
353	M	P(<1 yr)	Subordinate	Midnight		
724	F	$A(\geq 5yrs)$	Alpha?	Kara		

^aAge as of 1 May 2000